#### ELOCHUKWU, CHUKWUBUIKEM JOSEPH

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## EDUCATION BACHELOR OF TECHNOLOGY IN COMPUTER SCIENCE, FEDERAL UNIVERSITY OF TECHNOLOGY OWERRI. (JUNE 2023)

- Graduated with First Class Honors (top 1% in the University)
- CGPA: 4.91 / 5.00
- Research Interest: Artificial Intelligence, Machine Learning, Cloud computing and Cybersecurity.

## RESEARCH EXPERIENCES

## GRADUATE ASSISTANT WITH DR. UCHE MBANASO, CENTER FOR CYBERSPACE STUDIES, NASARAWA STATE UNIVERSITY, KEFFI, NASARAWA STATE. (JUNE 2023 – PRESENT)

*Topic: Machine Intelligence Support System for Offensive Cyber Operations in the Military* 

- Developed two machine learning models using Scikit-Learn, utilizing Random Forest and Support Vector machines to predict attack likelihood (percentage) and suggest potential attacks.
- Designed and built a web application using the Flask Python framework, automating the reconnaissance stage of offensive cyber-attacks and integrating the machine learning models to provide actionable insights.
- Employed a mixed research methodology, combining diverse approaches in Design Science Research (DSR) with qualitative and quantitative methods, adopting a pragmatist research philosophy to address complex problems using flexible methods.
- Set up and configured infrastructures of the AI and Malware Analysis research labs, including on-site servers, specialized operating systems and software, and network configuration.
- Utilized NumPy and Pandas libraries for creation and analysis of a dataset of 32768 rows and 27 columns from publicly available information on ports and vulnerabilities.

# PROJECT STUDENT WITH DR. ONYEMAUCHE UCHENNA, COMPUTER SCIENCE DEPARTMENT, FEDERAL UNIVERSITY OF TECHNOLOGY OWERRI, IMO STATE. (SEPTEMBER 2021 – JANUARY 2023)

Topic: An Intelligent Progressive Web Based System for Primary Health Facilities in Nigeria

- Developed and implemented an Intelligent Progressive Web Based Hospital Management System for FUTO medical center using the LAMP programming stack, Microsoft Azure AI services, and JavaScript for PWA enhancement.
- Used the Object-Oriented Analysis and Design Methodology, and the Object-Oriented SDLC for the analysis and design of the project.
- Conducted literature reviews and prepared two manuscripts (currently in press) for publication, created PowerPoint slides for project proposal and project defense presentations.

### HONOURS

#### AWARDS AND FEDERAL UNIVERSITY OF TECHNOLOGY OWERRI. (DECEMBER 2023)

HONOURS Overall Best Graduating Student, 2020/2021 graduating set.

Best Graduating Student, School of Information and Communication Technology.

Best Graduating Student, Computer Science Department.

FUTO CLASS OF '92 CLUB AWARD. (OCTOBER, 2023)

Best Graduating Student, School of Information and Communication Technology.

## NIGERIA FEDERATION OF CATHOLIC STUDENTS, FEDERAL UNIVERSITY OF TECHNOLOGY OWERRI. (OCTOBER, 2020)

Most Disciplined Brother of the Year 2020/2021 academic session

NIGERIA ASSOCIATION OF COMPUTING STUDENTS, FEDERAL UNIVERSITY OF TECHNOLOGY OWERRI. (OCTOBER, 2019)

Departmental Best Student of the Year.

#### MTN FOUNDATION. (OCTOBER, 2019)

2019 MTN Foundation Science and Technology Undergraduate Scholarship.

### **EXPERIENCES**

#### TEACHING GRADUATE ASSISTANT WITH DR. UCHE MBANASO, CENTER FOR CYBERSPACE STUDIES, NASARAWA STATE UNIVERSITY, KEFFI, NASARAWA STATE. (JUNE 2023 – PRESENT)

- Designed slides and presented physical and online lectures on the Introduction to programming course for data science post graduate diploma students, and set exams for 13 students.
- Designed and led hands on practical session on introduction to python programming as part of the Research Methodology course for computer science undergraduate third year students.
- Conducted two practical sessions during the one-week introduction to python for data science workshop for 16 data science post-graduate students.

#### NATIONAL YOUTH SERVICE CORPS WITH MAJ. GEN. SHUAIBU IBRAHIM, SHUAIBU IBRAHIM E-LIBRARY, NASARAWA, NASARAWA STATE. (DECEMBER 2023 - PRESENT)

- Taught computer appreciation course for non-majors, presented classes and practical sessions on the basic use of computer and some computer applications to 40 students for community development.
- Prepared 167 students for their Joint Admissions and Matriculations Board (JAMB) 2024 examination.

### EXPERIENCES

#### PROFESSIONAL STUDENT INTERN, HUAWEI TECHNOLOGIES COMPANY NIGERIA LIMITED, LEKKI, **LAGOS. (MAY – JULY, 2021)**

- Outsourced to the 9mobile service desk under Huawei Service Management team to ensure the service level agreement is not breached.
- Came top 1% in the company's MySQL Database Management Test.

#### STUDENT INTERN, DEACONS DIGITAL SOLUTIONS, ONITSHA, ANAMBRA. (AUGUST 2020 – MAY 2021)

- Participated in the backend development of a podcast and e-learning website using LAMP development stack.
- Improved the applications into a progressive web app which improved user experience.

#### STUDENT INTERN, JOHN BOSCO INSTITUTE OF TECHNOLOGY, OBOSI, ANAMBRA. (MAY - AUGUST, 2020)

- Learnt UI/UX fundamentals while assisting the computer science head of department in designing the user interface of the new school website using Adobe XD.
- Taught the holiday classes on computer appreciation and practical lessons on MS Word and Excel for first year and intending students.

#### COMMUNITY SERVICES

Supervised 8 computer science undergraduate students of Nasarawa State University Keffi, in their undergraduate final year project. (August 2023 – January 2024)

Mentored 3 co-students to complete their ALX Cloud Developer Nanodegree program with ALX and Udacity. (August – September, 2022)

#### **PUBLICATIONS**

#### **CONFERENCE PAPERS**

Elochukwu C., Njoku D., Onyemauche U., Okpalla C., Okolie S., and Ikwuazom C., "Leveraging AI Chat Bots and Messaging Platforms for Remote Healthcare Delivery in Nigeria." International Conference on Technological Solutions for Smart Economy (SmartEco 2024), Nigeria Computer Society, 2024. Accepted for Presentation and Publication.

Elochukwu C., Njoku D., Okpalla C. and Odii J., "Progressive Web Application for Seamless Primary Healthcare Delivery in Nigeria." International Conference on Technological Solutions for Smart Economy (SmartEco 2024), Nigeria Computer Society, 2024. Accepted for Presentation and Publication.

Abdullahi G., Mbanaso U., Elochukwu C. and Muhammad S., "Conceptual Design of Machine Intelligence Offensive Cyber Operations." 5th IEEE International Conference on Electro-Computing Technologies for Humanity (Nigercon\_2024), 2024. Submitted.

#### TRAININGS AND CERTIFICATIONS

#### NIGERIAN COMMUNICATION COMMISSION

Workshop on Cyber Security Awareness, Nasarawa State University, Keffi (June, 2023).

#### COURSERA.

AI for Scientific Research Specialization Certificate (October, 2023).

Google IT Support Professional Specialization Certificate (April, 2023).

Python for Everybody Specialization (June, 2022).

Python 3 Programming Specialization Certificate (August, 2022).

#### CISCO NETWORKING ACADEMY.

PCAP: Programming Essentials in Python (May, 2023).

CCNAv7: Introduction to Networks (January, 2022).

#### GOOGLE, ANDELA AND PLURALSIGHT AFRICA DEVELOPERS SCHOLARSHIP (GADS) PROGRAM.

Associate Cloud Engineering Certificate (March, 2023).

#### ALX-T AND UDACITY NANODEGREE SCHOLARSHIP PROGRAM.

Cloud Development Certificate (July, 2022).

#### PROFESSIONAL COMPUTER PROFESSIONALS (REGISTRATION COUNCIL OF NIGERIA).

AFFILIATIONS Graduate Membership (February, 2023).

#### NIGERIA COMPUTER SOCIETY.

Student Membership (October, 2021).

#### AFRICAN LEADERSHIP ACADEMY (ALX AFRICA FOUNDATION).

Fellow Membership (September, 2022).

#### LEADERSHIP

#### NATIONAL YOUTH SERVICE CORPS, NASARAWA, NASARAWA STATE.

AND VOLUNTEER **EXPERIENCES** 

President, Road Safety Community Development Group (May 2024 – Date)

Director of Outreach, Road Safety Community Development Group (February – May, 2024)

#### STUDENT UNION GOVERNMENT, FEDERAL UNIVERSITY OF TECHNOLOGY OWERRI.

Independent Students' Electoral Commissioner (November – December, 2022)

Computer Science Course Representative (November 2017 – June 2023)

#### NIGERIA FEDERATION OF CATHOLIC STUDENTS (NFCS), FEDERAL UNIVERSITY OF TECHNOLOGY OWERRI.

Chief Sacristan (President), Altar Servers Association (2020/2021 Academic Session)

Public Relations Officer, NFCS FUTO (2018/2019 Academic Session)

Editorial Chairman, De Lumen Press, NFCS FUTO (2018/2019 Academic Session)

SKILLS & Use of Overleaf LaTeX, Programming in Python 3, Working with Scikit-learn, NumPy and Pandas, Working with ABILITIES SQL database queries, Use of Git and GitHub, Streamlit and Flask Python web frameworks, Working with Windows and Kali Linux OS, System Administration, IT Security and IT Support.